

복막투석환자에서 발생한 보디텔라 관련 재발성복막염

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A Case of Relapsing Peritonitis Caused by *Bordetella Bronchiseptica* in Continuous Ambulatory Peritoneal Dialysis (CAPD) Patient

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Bordetella bronchiseptica is obligate aerobic, motile, nonfermentative gram negative coccobacillus with positive in test for catalase, oxidase, urease and nitrate reduction. Although It has been known to be commonly encountered as both a commensal and a cause of respiratory tract disease in many wild and domestic animals, it has very rarely been implicated as a cause of infection in humans. A few cases of infection in contact with animals, laboratory workers and immunocompromised patients have been reported. In 1981, *B. bronchiseptica* peritonitis

associated with continuous ambulatory peritoneal dialysis (CAPD) is reported firstly in the world. We experienced a case of CAPD peritonitis caused by *B. bronchiseptica* and this is the first case of human infection in Korea. A 56 year male, has been treated with CAPD due to end stage renal disease secondary to gout for 13 years, was admitted with complaints of abdominal pain. He regularly performed manipulations of the indwelling Tenckhoff catheter not having physical contact with animals. On admission, the temperature of the patient was 37.6°C and abdominal examination showed diffuse abdominal tenderness. Initial laboratory data was Hb: 10.6 g/dL, leucocytes: 8960/μL with 73.9% neutrophils, and BUN/Cr: 42/10.2 mg/dL, AST/ALT: 37/44 IU/L, total protein/albumin: 5.7/3.3 g/dL, C-reactive protein (CRP): 6.52 mg/dL. The peritoneal dialysate was turbid, and contained gram-negative coccobacillary rod, 5100/μL leucocytes with 99% of neutrophils. Culture of the peritoneal dialysate on both sheep blood and MacConkey agar by conventional method grew gram-negative coccobacilli, which was catalase, oxidase, urease positive, and reduced nitrate but did not ferment any carbohydrate. The organism was finally identified as *B. bronchiseptica*. Initially, the patient was treated with empiric antibiotics (ceftazidime and ceftazole) via intraperitoneal route. The abdominal pain, and turbid dialysate resolved within 4 days. As for the results of susceptibility tests, the organism was susceptible to the initial antibiotics. After maintaining the antibiotic therapy for 2 weeks, the culture of peritoneal dialysate showed no growth. However, there were two episodes of relapsing peritonitis, and *B. bronchiseptica* with the same characteristics was identified from peritoneal dialysate. We decided to interrupt CAPD and removed the indwelling CAPD catheter, ceftazidime and netilmycin was given by intravenously injection. The patient started hemodialysis afterwards.

Key Words : 보디텔라, 복막염, 복막투석

Bordetella bronchiseptica, Peritonitis, CAPD